

Could I-17 expansion signal end to desert night sky?

By Ashley Painter

Northwest valley residents may see fewer stars and planets in the night sky as lighting is installed on I-17, along with other improvements currently taking place according to the president of a local astronomy club.

Foothills Astronomy Club president Dan Heim said that the biggest impact on this area's night skies will be not the brightness of the light bulbs used, but how well the light fixtures direct the light towards the ground. Plans call for the new freeway lighting to consist of 30- to 40-foot light poles spaced approximately 250 feet apart in the freeway median.

Light pollution is the technical name used when light sources affect the visibility of celestial bodies and is a concern among some northwest valley residents. Using well-shielded light fixtures, or cut-off fixtures, can lessen light pollution by keeping the light from scattering and going up into the sky. When the light does scatter into the sky it creates what is called "skyglow" which reduces the contrast in the night sky making even the brightest stars impossible to see.

Doug Nintzel, ADOT spokesman, is aware of the concern regarding light pollution and said ADOT "concentrates on using what are known as "cut-off" fixtures."

Heim said he was concerned about the high pressure sodium light bulbs that ADOT is planning to use in its freeway lighting design. The alternative, he says, is to use low-sodium pressure light bulbs. However, according to ADOT's traffic engineering office "those bulbs are being phased out around the country since they do not accurately render colors and are inefficient."

"Lighting is the most cost effective safety tool we have to limit crashes, fatalities and the cost associated with crashes," Nintzel said.

The night sky may not remain as unpolluted as it once was, but ADOT is conscious of the issue and taking steps to decrease the light pollution caused by the I-17 project. As the city grows outward some of the stars may fade due to increased skyglow but according to Heim it may not be a total loss.

He offered these tips for ways individuals could diminish everyday light pollution.

- Turning outside lighting off when outside areas were not in use
- Using a motion sensor for outside lighting
- Using light fixtures that direct the light downwards

Heim pointed out that these actions will not only benefit the night sky but also the homeowner who can save energy and money by directing light downward more efficiently and thereby allowing them to use a lower wattage bulb.